

Air Resistance

- 1 - Drop a **whole** flat sheet of paper (hold the paper parallel to the floor) from the top of a meter stick. Record how long it takes the paper to reach the ground.
- 2 - Drop **half** (Fold in half once) of a flat sheet of paper (hold the paper parallel to the floor) from the top of a meter stick. Record how long it takes the paper to reach the ground.
- 3 - Crumple the whole piece of paper into a LOOSE ball. Drop it from the top of a meter stick & record how long it takes to reach the ground.
- 4 - Now, crumple the loose ball into TIGHT ball. Drop it from the top of a meter stick & record how long it takes to reach the ground.
- 5 - Make the sheet of paper into a design so that it will fall slowly. Drop it from the top of a meter stick & record how long it takes to reach the ground.
- 6 - Make another piece of paper into a design so that it will fall quickly. Drop it from the top of a meter stick & record how long it takes to reach the ground.

Paper Design/Form	Time (sec) to hit the ground
Flat - whole piece	
Half (Folded) Piece	
Loosely Crumpled	
Tightly Crumpled	
Half Paper (Folded) Slow Fall Design	
Half Paper (Folded) Quick Fall Design	

1 - Explain why the papers fell at different speeds.

2 - Infer why a skydiver will fall in a spread-eagle (Like a flying squirrel) position before opening his/her parachute.